

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

- 1.(currently amended) A method to form a magnetically pinned layer, comprising:
providing a layer of antiferromagnetic material having a top surface and an edge that is different from said top surface; and
depositing a layer of magnetic material, only a part of which contacts both said top surface and said edge, thereby forming said magnetically pinned layer, only a part of which overlies said layer of antiferromagnetic material.
2. (previously presented) The method of claim 1 wherein said layer of magnetic material contacts said edge through overlap of said top surface by said layer of magnetic material.
- 3.(original) The method of claim 1 wherein said layer of magnetic material comprises a pair of ferromagnetic layers separated by, and contacting, an antiferromagnetic coupling layer.
4. (currently amended) A method to form a magnetically pinned layer, comprising:
providing a pair of antiferromagnetic layers, having coplanar top and bottom surfaces and also having opposing inside edges that are different from

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said coplanar surfaces, said edges being separated by no more than about 2 microns;

depositing a layer of magnetic material that is between, and in contact with, said antiferromagnetic layers; and

then magnetizing said layer of magnetic material, thereby forming said magnetically pinned layer without a shunting effect by said layer of antiferromagnetic material.

5. (original) The method of claim 6 wherein said layer of magnetic material contacts said inside edges through overlap.

6. (original) The method of claim 4 wherein said layer of magnetic material comprises a pair of magnetically antiparallel ferromagnetic layers contacting, and separated by, an antiferromagnetic coupling layer.

7-31. Canceled